



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,573	05/21/2001	Anthony L. Lentine	32-2-26	7990
7590			EXAMINER	
11/17/2004			DUONG, DUC T	
John A. Caccuro 9 Ladwood Drive Holmdel, NJ 07733			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/862,573

Applicant(s)

LENTINE ET AL.

Examiner

Duc T. Duong

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16, 17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 15 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-14, 16, 17, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Bottorff et al (U.S. Patent 2001/0014104 A1).

Regarding to claims 1, 14, and 19, Bottorff discloses a data compression multiplexer apparatus (Fig. 1) comprising a plurality of data stream compression apparatuses 2a (Fig. 1 page 2 paragraph 0028 lines 1-7), each comprising a data stream processing element 42 for receiving a first data stream (PCS data stream) of data entities at a first line rate (Fig. 3 page 3 paragraph 0037 lines 23-27), each data entity including a data packet 66 and a gap 64 (Fig. 6), and responsive to a control signal (page 4 paragraph 0038 lines 4-7) for generating a second stream (compressed

Art Unit: 2663

data stream) of data entities at a second line rate which is less than the first line rate (page 4 paragraph 0038 lines 7-22); and a control unit 42 transmit for providing said control signal identifying a predetermined portion of non-unique, invariant content of said first stream of data entities (Fig. 6 page 4 paragraph 0045 lines 4-7; the PCS 42 identified the non-unique and invariant content 64), and wherein said data stream processing element in response to said control signal removes said predetermined portion of non-unique, invariant content of said first stream of data entities thereby generating said second data stream of data entities at the second line rate (Fig. 6 page 4 paragraph 0045 lines 7-22), and a data stream multiplexer 18 for multiplexing said plurality of second data streams to generate a multiplexed data stream (Fig. 3 page 3 paragraph 10-16).

Regarding to claims 2 and 9, Bottorff discloses the non-unique, invariant content of said first data stream is determined in real-time (page 5 paragraph 0046; the immediate processing of data stream by the PMA layer 44 and the PCS 42 at the moment of reception implied real-time operation).

Regarding to claims 3 and 10, Bottorff discloses the non-unique, invariant content includes one or more inter-packet characters (page 5 paragraph 0046 lines 9-11).

Regarding to claims 4, and 11, Bottorff discloses the first data stream is gigabit Ethernet data stream and the non-unique, invariant content includes one or more PREAMBLE characters (Fig. 6 page 5 paragraph 0047 lines 1-5).

Regarding to claims 5, and 12, Bottorff discloses the first data stream is gigabit Ethernet data stream and the non-unique, invariant content includes one or more IDLE2 characters (Fig. 6 page 5 paragraph 0047 lines 5-9).

Regarding to claims 6, and 13, Bottorff discloses non-unique, invariant content of said first stream of data entities has been predetermined (Fig. 6 page 5 paragraph 0047 lines 9-16).

Regarding to claims 7, 8, 16, 17, and 20, Bottorff discloses a data expansion demultiplexer apparatus (Fig. 1) comprising a data stream demultiplexer 18 for demultiplexing a received multiplexed data stream into a plurality of second data streams (Fig. 3 page 3 paragraph 10-16); a plurality of data stream expander apparatuses 6 (Fig. 1 page 2 paragraph 0028 lines 1-10), each for processing one of the plurality of second data streams (Fig. 3 and 6 page 3 paragraph 0037 lines 23-27; the compressed data streams in Fig. 6 is the second data streams), each data stream expander apparatus including a data stream processing element 42 for receiving a second data stream of data entities at a second line rate and responsive to a control signal (page 4 paragraph 0038 lines 4-7) for generating a first stream of data entities at a first line rate which is greater than the second line rate (page 4 paragraph 0038 lines 7-22), a control unit 42 for providing said control signal identifying a predetermined portion of non-unique, invariant content which is to be added to said second data stream of data entities (Fig. 6 page 4 paragraph 0045 lines 4-7; the PCS 42 identified the non-unique and invariant content 64), and wherein said data stream processing element in response to said control signal adds said predetermined portion of non-

Art Unit: 2663

unique, invariant content to said second data stream of data entities thereby generating said first data stream of data entities at the first line rate (Fig. 6 page 5 paragraph 0046).

***Allowable Subject Matter***

3. Claims 15 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-Th (9:00 AM-6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD  
DD



CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600